

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

15

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 08/01/2014		2. CONTRACT NO. (If any) EP-W-10-055		6. SHIP TO: a. NAME OF CONSIGNEE SRRPOD	
3. ORDER NO. 0074		4. REQUISITION/REFERENCE NO. PR-OSWER-14-00272		b. STREET ADDRESS US Environmental Protection Agency USEPA Ronald Reagan Building (RRB) 1300 Pennsylvania Avenue NW	
5. ISSUING OFFICE (Address correspondence to) SRRPOD US Environmental Protection Agency Superfund/RCRA Regional Procurement Operations 1200 Pennsylvania Ave, NW Washington DC 20460				c. CITY Washington	
				d. STATE DC	
				e. ZIP CODE 20004	
7. TO: a. NAME OF CONTRACTOR EASTERN RESEARCH GROUP, INC.				f. SHIP VIA	
b. COMPANY NAME				8. TYPE OF ORDER <input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 110 HARTWELL AVENUE				REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
d. CITY LEXINGTON				e. STATE MA	
				f. ZIP CODE 024213136	
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE ORCR	
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				12. F.O.B. POINT Destination	
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 03/17/2015	
				16. DISCOUNT TERMS	

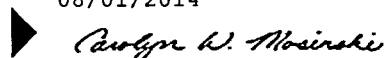
17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 112947395 Waste Characterization and Related Tasks The terms and conditions of contract EP-W-10-055 are hereby incorporated by reference. Continued ...					
18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
a. NAME RTP Finance Center				\$264,525.00		17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive				\$264,525.00		
c. CITY Durham				d. STATE NC	e. ZIP CODE 27711	

22. UNITED STATES OF

08/01/2014

AMERICA BY (Signature)

ELECTRONIC
SIGNATURE

23. NAME (Typed)

Carolyn Mosinski

TITLE: CONTRACTING/ORDERING OFFICER

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE NO

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 08/01/2014	CONTRACT NO. EP-W-10-055	ORDER NO. 0074
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>The contractor shall perform services in accordance with the attached statement of work dated June 11, 2014 (13 pages) and the Contractor's proposal dated June 25, 2014, in the amount of \$264,525.00.</p> <p>The task order funding amount is established at \$265,525.00, which the Contractor is not authorized to exceed. Any expenditure above this amount is at the contractor's own risk. This task order is hereby fully funded.</p> <p>Services rendered under this task order are for non-severable services. This is a time and materials task order.</p> <p>TOPO: Hope Pillsbury Max Expire Date: 03/17/2015</p> <p>Admin Office: SRRPOD US Environmental Protection Agency Superfund/RCRA Regional Procurement Operations 1200 Pennsylvania Ave, NW Washington DC 20460</p> <p>Period of Performance: 07/31/2014 to 03/17/2015</p> <p>Waste Characterization and Related Tasks</p> <p>Accounting Info: 14-15-B-31M-302DA2-2585-1431MRP013-001 BFY: 14 EFY: 15 Fund: B Budget Org: 31M Program (PRC): 302DA2 Budget (BOC): 2585 DCN - Line ID: 1431MRP013-001 Funding Flag: Complete Funded: \$264,525.00</p> <p>The obligated amount of award: \$264,525.00. The total for this award is shown in box 17(i).</p>				264,525.00	
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					\$264,525.00	

TASK ORDER

Waste Characterization and Related Tasks

BACKGROUND

The Office of Resource Conservation and Recovery (ORCR) is working to support advances in the integrated management of wastes. As part of this effort, we need to characterize municipal solid waste (MSW) generation and management and also broaden our focus to wastes in general.

In the past, EPA has developed several reports on the Characterization of Municipal Solid Waste in the United States. The most recent full report in this series is named "Municipal Solid Waste in the United States: 2011 Facts and Figures." It contains an executive summary and the full report. The most recent fact sheet is named "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012."

The purpose of this task order is to develop the full report, "Waste in the United States: 2013 Facts and Figures". The contractor shall present the data in tables, writing it up in 3 chapters, an executive summary, and appropriate appendices, table of contents, list of figures, and references. A fact sheet shall also be developed, based on 2013 data. The full report developed for the year 2011 shall be used as a starting point for the 2013 full report. The fact sheet for 2012 shall be used as a starting point for the 2013 fact sheet. In addition, information on waste beyond municipal solid waste (MSW) shall be included in the full report and the fact sheet and the design shall differ (see Tasks 3, 9, and 10). Previous full reports and fact sheets are available at <http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm>

The Waste Characterization Report shall analyze the composition and amounts of America's MSW, and include how those materials are recycled, incinerated and landfilled. The methodology used shall be a "top-down" materials flow approach to estimate the size of the waste stream. Data shall be gathered from a wide variety of public and private sources, such as the Department of Commerce, the Census Bureau, and trade associations.

All data collection, assessment and quality issues associated with this task order shall adhere to EPA data quality guidance and requirements, as established in CIO 2105, EPA Quality Manual CIO 2105-P-01-0, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html As part of the monthly progress reports for this task order, the contractor shall provide a summary of all data quality activities conducted during each month. The data gathered shall be the most recent data available.

Performance under this task order requires the contractor to develop deliverables that are considered by EPA to be "Communications Products". The contractor shall develop Communications Products in accordance with *EPA's Policy and Implementation Guide for Communications Product Development and Approval* found here:

<http://www.epa.gov/productreview/guide/index.html>. Additionally, if Communications Products require the use of EPA graphics, logos, or other identifiable materials, the Communications Products are further subject to the standards in *EPA's Visual and Product Standards Graphics Manual* found here: <http://wedcor.cor.epa.gov/pages/TIM/VisualIdentity-6-19-07.pdf>.

If this task order requires use of RCRA Confidential Business Information (CBI), the contractor and contractor employees shall abide by all RCRA CBI requirements at 40 CFR Part 2, Subpart B, including 40 CFR 2.305(h)(2), incorporating by reference 40CFR2.301(h)(2), as well as 40 CFR 260.2, 270.12, and 270.115, and requirements and stipulations found in the RCRA CBI Security Manual. The contractor shall identify in the work plan budget all estimated costs for dealing with CBI requirements per the contract. CBI is potentially included only in Tasks 1 and 2.

NOTE: Contractor personnel attending meetings and working in other situations where their status is not obvious to third parties must be required to identify themselves as such to avoid creating the impression in the minds of members of the public that they are Government officials.

PURPOSE OF TASK ORDER

The purpose of this task order is to develop characterization data on MSW Source Reduction, Recycling, Generation, and Disposal for 2013 and perform several related tasks. Specific objectives include:

- (1) Update estimates of the materials and products in MSW for 2013.
- (2) Develop the 2013 versions of all the charts, tables and figures provided in chapter 2 and 3 of the full 2011 report, as slightly modified in the 2012 Tables and Figures.
- (3) Prepare the 2013 executive summary and full report, including waste beyond MSW.
- (4) Prepare the Fact Sheet, "Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2013," based in part on the similar document, "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012."
- (5) Re-design the full report and fact sheet.
- (6) Develop charts in data.gov/EDG format.
- (7) Source reduction of packaging.
- (8) Food waste estimates.
- (9) Electronics generation and recovery methodology

(10) Economics scoping memos

(11) Construction and demolition debris

(12) Waste wheel generation estimates

(13) Integration of new state data into full report

(14) 508-compliant versions of memos

(15) Transition to a web-based report

The work to be completed and the schedule of deliverables are included in the tasks and subtasks detailed below.

Task 1 - Develop 2013 Data on MSW Source Reduction, Recycling, Generation, and Disposal (Task 5 of Contract-level SOW)

The contractor shall prepare figures and tables that present the 2013 MSW data, to be presented in the 2013 fact sheet and the 2013 full report.

For this task order, MSW generation shall be characterized by the material flows methodology, a materials balance approach. This methodology was developed by EPA in the mid-1970's, and has been used in an early series of characterization reports in that decade and later in the 1980's and 1990's. Through these reports, a more-than 30-year data series on products and materials has been developed. The data for these reports consists of publicly available information from the U.S. Department of Commerce, trade associations, and similar sources.

As has been done in previous reports, estimated generation of MSW shall be based on adjusted production data for the products identified as municipal solid waste. Management of MSW through recycling, composting, combustion, and landfilling shall be estimated through literature searches and other published data on materials recovery, and numbers of combustion facilities. MSW combustion facilities shall be broken down by type, with numbers of combustion facilities, and number of conversion facilities, such as pyrolysis and gasification, also provided.

Subtask 1.1 - Update Estimates of Materials and Products in MSW for 2013

The contractor shall update the estimates of the materials and products in municipal solid waste for 2013. The methodology used to update these estimates shall be based on the EPA-approved methodology used in the previous characterization reports, their corresponding executive summaries, and the 2012 fact sheet, that can be found at <http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm>

The deliverable shall be the tables and charts similar to those in Chapter 2 and 3 of the "Municipal Solid Waste in the United States: 2011 Facts and Figures." These were slightly modified in "Tables and Figures for 2012", available at the website mentioned above. There are approximately 40 such tables and charts. Also included, shall be a 2-4 page progress report on the update of the materials and product estimates. The progress report shall include a description of key methodological issues and how they are proposed to be addressed.

<u>Deliverables</u>	<u>Due Date</u>
Chapter 2 and 3 Tables and Charts	August 21, 2014*
Progress Report	August 21, 2014*

*Or dates as agreed upon by the tocor and the contractor.

Subtask 1.2 – Draft 2013 Executive Summary Report, based on data developed for Subtask 1.1

The contractor shall write the executive summary (ES) for "Waste Characterization in the United States: 2013 Facts and Figures", based on data developed for Task 1.1. The executive summary for the 2011 waste characterization report shall be used as a starting point for the 2013 ES. The 2013 ES may differ in style (see Task 3) and may also include waste beyond MSW, in particular, C&D debris and the waste wheel (see Tasks 9 and 10).

<u>Deliverables</u>	<u>Due Date</u>
First draft ES for 2013	September 5, 2014*
Second draft ES for 2013	One week after receipt of comments from EPA TOCOR

*Or date as agreed upon by the tocor and the contractor.

Subtask 1.3 – Draft 2013 Full Report, based on data developed for task 1.1

The contractor shall write the full report for "Waste Characterization in the United States: 2013 Facts and Figures," based on data developed for Task 1.1. The contractor shall provide a written rationale for any significant data changes. The contractor shall provide additional detail regarding the generation and recovery of food scraps and yard trimmings. The report may differ in style (see Task 3) and the appendices may include waste beyond MSW, in particular, C&D debris and the waste wheel (see Tasks 9 and 10).

<u>Deliverables</u>	<u>Due Date</u>
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First draft report for 2013	September 5, 2014*
Revised draft report for 2013	One week after receipt of comments from EPA TOCOR
2 nd revised draft report for 2013	One week after receipt of comments from EPA TOCOR
Final report for 2013	One week after receipt of comments from EPA TOCOR

*Or date as agreed upon by the tocor and the contractor.

Task 2 - Develop Fact Sheet for 2013 Data (Task 4 of Contract-level SOW)

The contractor shall develop a 2013 fact sheet, (FS) using “Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012” as a starting point. This fact sheet shall contain benefits numbers from the WARM model, similar to the 2012 fact sheet. The EPA TOCOR shall provide the benefits numbers to the contractor. The fact sheet may differ in style (see Task 3) and may include waste beyond MSW, in particular, C&D debris and the waste wheel (Tasks 9 and 10). The contractor shall also provide the excel versions of the figures from the fact sheet to EPA.

<u>Deliverables</u>	<u>Due Date</u>
First draft FS for 2013	September 18, 2014*
Revised draft FS for 2013	One week after receipt of comments from EPA TOCOR
2 nd draft FS for 2013	One week after receipt of comments from EPA TOCOR
3 rd draft FS for 2013	One week after receipt of comments from EPA TOCOR
Final FS for 2013	One week after receipt of comments from EPA TOCOR
Excel figures for 2013	One week after EPA TOCOR receives Final FS

*Or date as agreed upon by the tocor and the contractor.

Task 3 – Re-design of the full report and fact sheet (Task x of Contract-level SOW)

The contractor shall re-design the fact sheet so it has a new look. The fact sheet shall be in full color. This new look shall coordinate with the design of the full report. The full report shall include some 3-D pie charts, more pie charts and graphs in color, and an attractive cover.

<u>Deliverables</u>	<u>Due Date</u>
Example first page of re-designed fact sheet and cover of full report	September 5, 2014*
2 nd draft first page of re-designed fact sheet and cover of full report	One week after receipt of comments from EPA TOCOR

*Or date as agreed upon by the tocor and the contractor.

Task 4 – Develop charts in Data.gov/EDG format (Task 5 of Contract-level SOW)

The contractor shall develop a second version of the MSW tables in a format suitable for posting on the EDG website (formerly they were posted on the Data.gov website). These are a stand-alone deliverable. An example of the format is attached below, with the heading “Materials Discarded in the U.S. Municipal Waste Stream”. In order to improve compatibility for interactive platforms such as Data.gov’s Socrata platform (<http://explore.data.gov/>), tables should have a single header row with explanatory column names. Raw or granular data shall be generated and provided in machine-readable formats (e.g., XML, CSV, XLS) and environments. Standard metadata, technical documentation, and/or data dictionaries shall be provided.

<u>Deliverables</u>	<u>Due Date</u>
First draft tables	September 5, 2014*
Final tables	One week after receipt of comments from EPA TOCOR

*Or date as agreed upon by the tocor and the contractor.

Task 4 template**Materials Discarded in the U.S. Municipal Waste Stream, 1960 to 2009 (in tons)**

The U.S. Environmental Protection Agency (EPA) has data on the generation and disposal of waste in the United States spanning more than 30 years. We use this information to measure the success of waste reduction and recycling programs across the country. Our trash, or municipal solid waste (MSW), is made up of the things we commonly use and then throw away. These materials include items such as packaging, food scraps, grass clippings, sofas, computers, tires, and refrigerators. MSW does not include industrial, hazardous, or construction waste. The data

on Materials Discarded in the Municipal Waste Stream, 1960 to 2009 provides estimated data in tons discarded after recycling and compost recovery for the years, 1960, 1970, 1980, 1990, 2000, 2005, 2007, 2008, and 2009. In this data set, discards include combustion with energy recovery. This data table does not include construction and demolition debris, industrial process wastes, or certain other wastes. The "Other" category includes electrolytes in batteries and fluff pulp, feces, and urine in disposable diapers. Details may not add to totals due to rounding.

Materials Discarded in the U.S. Municipal Waste Stream, 1960 to 2009 (in tons)					
	Materials	1960	1970	1980	Etc.
1	Products – Paper and Paperboard	24,910,000			
2	Products - Glass				
3	Products – Metals - Ferrous				
4	Products – Metals - Aluminum				
5	Products – Metals – Other Nonferrous				
6	Products – Metals -Total				
7	Products - Plastics				
8	Products – Rubber and Leather				
9	Products - Textiles				
10	Products – Wood				
11	Products - Other				
12	Products – Total Materials				
13	Other Wastes – Food Scraps				
14	Other Wastes – Yard Trimmings				
15	Other Wastes – Miscellaneous Inorganic				
16	Other Wastes - Total				
17	Total MSW Discarded - Weight	82,510,000			

Task 5 – Source Reduction of Packaging (Task 5 of Contract-level SOW)

The contractor shall develop a scoping memo of about 3 to 5 pages, describing ways MSW packaging has been source reduced over the last 10 to 20 years, with emphasis on the last 10 years. Quantification of the source reduction is preferred but not required. If directed to by the EPA TOCOR, incorporate the estimates into chapter 3 of the full report.

<u>Deliverables</u>	<u>Due Date</u>
First draft SR scoping memo	20 weeks after initial kick-off meeting
Final SR scoping memo	Two weeks after receipt of comments from EPA TOCOR on first draft

Task 6 – Food Waste and Bio-based Products and Chemicals (Task 5 of Contract-level SOW)

Task 6.1 – Develop Food Waste Estimates

Develop estimates for how much MSW food waste was donated, composted, used as animal feed, and anaerobically digested (AD) in 2013. Estimates of disposition of AD digestate shall be developed. If directed to by the EPA TOCOR, incorporate the estimates into the full report.

<u>Deliverables</u>	<u>Due Date</u>
First draft estimates memo	16 weeks after initial kick-off meeting
Final estimates memo	Two weeks after receipt of comments from EPA TOCOR

Task 6.2 – Bio-based Products and Chemicals

Bio-based products and chemicals including cellulosic and biomass related materials are starting to be diverted from the waste stream and used in waste-to-energy scenarios. Scope out what major types of bio-based products and chemicals are being used in waste-to-energy scenarios and note which ones, if any, are being used for the various categories of renewable fuels including Cellulosic Biofuel, Biomass-Based Diesel, Advanced Biofuel, Renewable Fuel and Cellulosic Diesel. Quantify amounts if possible.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	16 weeks after initial kick-off meeting
Final memo	Two weeks after contractor receives comments from EPA on first draft memo.

Task 7 – Electronics Generation and Recovery Methodology (Task 5 of Contract-level SOW)

The current electronics generation and recovery methodology is described in “Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures—A Methodology Document”. This is available on request. The contractor shall update the electronics generation and recovery methodology, especially in light of the recently published MIT report, “Quantitative Characterization of Domestic and Transboundary Flows of Used Electronics: Analysis of Generation, Collection and Export in the United States,” by Huabo Duan, T. Reed Miller, Jeremy Gregory, and Randolph Kirchain of MIT and Jason Linnell of the National Center for Electronics Recycling, December 2013.

The contractor shall develop an updated estimate for how much electronics recycling was certified versus uncertified in 2013. Incorporate the task 7 information into the full report.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	8 weeks after initial kick-off meeting
Second draft memo	Two weeks after contractor receives comments from EPA on first draft memo
Final memo	One week after contractor receives comments from EPA on second draft memo

Task 8 – Economics Scoping Memos (Task 5 of Contract-level SOW)

At the direction of the EPA TOCOR, key information from subtask 8.1, 8.2, 8.3, 8.4 and/or 8.5 shall be incorporated into the full report.

Subtask 8.1 – Historical Charts

Economic data and economic indicators are important, when considering sustainable materials management. Develop a historical chart of MSW commodity revenues over time and a historical chart of MSW disposal over time. The time span shall be 1960 through 2013, if data is available over that time span.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	12 weeks after initial kick-off meeting
Final memo	One week after receipt of EPA TOCOR comments

Subtask 8.2 – Indicators

Indicator A is Exploration of export markets on price of selected commodities and their volatility and indicator B is Exploration of data regarding supply and demand for the selected commodities and how that impacts price, recycling rates, and disposal. These were mentioned in the 9/17/2013 indicator selection memorandum, which will be supplied if requested. Scope out indicators A and B, including (1) name and description of indicator, (2) why the indicator might be of interest, (3) data caveats and limitations, including data availability gaps, (4) data availability, including cost, location, frequency of publication and available years, and (5) highlights from other studies performing similar work. The commodities to be addressed are paper, plastic, and metals.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	12 weeks after initial kick-off meeting
Final memo	One week after receipt of EPA TOCOR comments

Subtask 8.3 – Materials Processing Scoping Studies

Scope out availability of data and the appropriate methodology for creating report content regarding: 1) gross and net recycling rates of various commodities providing a basis for identifying data gaps and recycling system efficiencies, and 2) domestic processing versus exports for materials recycling. This has already been done for paper (corrugated containers and newspapers); plastic (PET bottles and jars); metal packaging (aluminum and steel cans); and scrap tires. The memo “Recovered Materials Processing Scoping Study” (12/20/2013) will be supplied on request. The contractor shall perform similar scoping analyses for HDPE plastic containers and glass containers.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	12 weeks after initial kick-off meeting
Final memo	One week after receipt of EPA TOCOR comments

Subtask 8.4 -- Update of 12/20/13 Materials Processing Scoping Study

EPA plans to send out portions of the memo “Recovered Materials Processing Scoping Study (12/20/13) to appropriate industry contacts for review. The contractor shall revise the memo based on comments forwarded to the contractor by EPA.

First draft memo	4 weeks after receipt of comments from EPA
Final memo	One week after receipt of EPA TOCOR comments

Task 8.5 – Analysis of MSW Generation versus PCE and GDP

Analyze MSW generation versus gross domestic product (GDP) and MSW generation versus personal consumer expenditures (PCE). Include a graph in the 2013 fact sheet similar to Figure 9 in the 2012 fact sheet. Include appropriate text along with the graphs. Use the time span 1960 through 2013.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	8 weeks after initial kick-off meeting
Second draft memo	1 week after receipt of comments from EPA TOCOR
Inclusion in 2013 fact sheet	September 18, 2014*

*Or date as agreed upon by the tocor and the contractor.

Task 9 – Construction and Demolition Debris- National Estimates (Task 5 of Contract-level SOW)

The contractor shall estimate how much construction and demolition debris is generated in the United States. Estimate how much is recycled and how much is disposed. The contractor shall either use a mass balance approach or perform these estimates based on state data. The approach shall be decided on, at the kick-off meeting for the project. The analysis shall address traffic pavement and steel in roads, bridges, and other infrastructure, and building-related C&D waste made up of materials such as concrete, steel, asphalt shingles, gypsum wallboard and plaster, wood, and brick and clay tile. The analysis shall be included as an appendix to the Waste Characterization Report and key information shall be included in the Fact Sheet.

Note that EPA has performed two C&D Characterization Reports in the past which should provide useful information in performing this task. Links to these are:

<http://www.epa.gov/epawaste/conservation/rrr/imr/cdm/pubs/cd-meas.pdf> and
<http://www.epa.gov/epawaste/hazard/generation/sqg/cd-rpt.pdf>

Additional memos which the contractor might find of assistance include “Construction and Demolition (C&D) Materials Scoping Study: C&D Generation and Management Methodology”, 10/10 2012, and “Construction and Demolition (C&D) Materials Scoping Study: Building Materials Reuse Centers”, 10/5/2012. These are available on request.

<u>Deliverables</u>	<u>Due Date</u>
First draft analysis	16 weeks after initial kick-off meeting
Second draft analysis	Two weeks after contractor receives comments from EPA on first draft analysis
Final analysis	Two weeks after contractor receives comments from EPA on second draft analysis

Task 10 – Waste Wheel Generation Estimates (Task 5 of Contract-level SOW)

The waste wheel is a pie chart which estimates waste generated in the United States, by type. The types included in the waste wheel are hazardous waste, non-hazardous industrial solid waste, municipal solid waste, building-related construction and demolition materials, special wastes, and other wastes. Special wastes include cement kiln dust, mining and mineral processing waste, crude oil and natural gas waste, and fossil fuel combustion waste. The contractor shall update the waste wheel with the most recent data available from EPA. New analysis (other than MSW and C&D mentioned above), is not expected. Appropriate explanatory text shall accompany the waste wheel.

The latest version of the waste wheel can be found on page 4 of EPA's internal report, "State of the National RCRA Program"-Draft-December 28, 2011, which can be supplied on request. This memo shall be an appendix to the Waste characterization report. Waste wheel information shall be incorporated into the full report executive summary and the fact sheet.

<u>Deliverables</u>	<u>Due Date</u>
First draft appendix	10 weeks after initial kick-off meeting
Second draft appendix	Two weeks after contractor receives comments from EPA on first draft analysis
Final appendix	Two weeks after contractor receives comments from EPA on second draft analysis

Task 11 – Integration of New State Data into Full Report (Task 5 of Contract-level SOW)

The contractor shall develop a method for how to integrate new state data developed under the State Data Measurement Sharing Program (SDMSP), into the Full Waste Characterization Report. The contractor shall identify any differences in definitions between the SDMSP and the historical MSW Characterization Report.

Describe the integration method in a memo. Refer to the website http://www.epa.gov/epawaste/conservation/tools/recmeas/state_effort.htm for information on the SDMSP.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	20 weeks after initial kick-off meeting
Final memo	2 weeks after receipt of EPA TOCOR comments

Task 12 – Generating PDF, 508-Compliant Versions of Existing Memos

EPA has about fourteen memos, about 5-20 pages in length, in word, with excel graphs and figures. There are about 55 tables and 40 figures, total, in these memos. The contractor shall convert the memos to PDF, with appropriate tags on the graphics for 508-compliance. The contractor shall also convert about 3 excel files of MSW characterization data from 1960 to 2012, to 508-compliance.

Final memos

6 weeks after memos and excel files
supplied by EPA TOCOR

Task 13 – Transition to a Web-Based Report

The contractor shall briefly describe how the Waste Characterization Report could be transitioned to a web-based report. In this web-based report, individual MSW commodities' generation and recycling rates would be posted when available during the year. A yearly report would summarize the data, and provide national MSW generation, recycling, and disposal data. This shall be described in a memo of 10 to 20 pages.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	20 weeks after initial kick-off meeting
Final memo	2 weeks after receipt of EPA TOCOR comments

ELECTRONIC DELIVERABLES

Internet Ready Electronic Files

The contractor shall provide the deliverables in pdf and in Internet-ready format. Final deliverables shall comply with the standards, guidelines and processes in the EPA Web guide at <http://www.epa.gov/webguide>.

Final deliverables shall comply with the accessibility standards developed under Section 508 of the Americans with Disabilities Act (<http://www.section508.gov>)

At the completion of this task order, the contractor shall return all program-related materials that the contractor possesses, that belong to EPA. The contractor shall also provide a copy of source spreadsheets used to compile and create the waste characterization fact sheet and tables and charts.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 15	
2. AMENDMENT/MODIFICATION NO. 001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY SRRPOD US Environmental Protection Agency Superfund/RCRA Regional Procurement Operations 1200 Pennsylvania Ave, NW Washington DC 20460		CODE SRRPOD		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) EASTERN RESEARCH GROUP, INC. Attn: DICKRAN BABIGIAN 110 HARTWELL AVENUE LEXINGTON MA 024213136		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 112947395		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-W-10-055 0074	
				10B. DATED (SEE ITEM 13) 08/01/2014	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 112947395

Waste Characterization and Related Tasks

TOCOR: Hope Pillsbury Max Expire Date: 03/17/2015

The purpose of this bilateral modification is to:

- 1) Incorporate the revised statement of work dated January 26, 2015; and
- 2) Extend the period of performance of this task order.

The period of performance end date for this task order is changed from March 17, 2015, to June 5, 2015. This period of performance extension is at no additional cost to the Government. This extension is needed due to Government-caused delays.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Carolyn Mosinski	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	11 Carolyn W. Mosinski ELECTRONIC SIGNATURE	16C. DATE SIGNED 01/29/2015

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-W-10-055/0074/001PAGE OF
2 15NAME OF OFFEROR OR CONTRACTOR
EASTERN RESEARCH GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>All other terms and conditions remain unchanged.</p> <p>LIST OF CHANGES: Reason for Modification : Supplemental Agreement for work within scope Period Of Performance End Date changed from 2015-03-17 to 2015-06-05 Total Amount for this Modification: \$0.00 Total Amount for this Version: \$0.00 Total Amount for this Award: \$264,525.00 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive Durham NC 27711 Period of Performance: 07/31/2014 to 06/05/2015</p>				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 15	
2. AMENDMENT/MODIFICATION NO. 002		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY SRRPOD US Environmental Protection Agency Superfund/RCRA Regional Procurement Operations 1200 Pennsylvania Ave, NW Washington DC 20460		CODE SRRPOD		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) EASTERN RESEARCH GROUP, INC. Attn: DICKRAN BABIGIAN 110 HARTWELL AVENUE LEXINGTON MA 024213136		(X)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 112947395		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-W-10-055 0074	
				10B. DATED (SEE ITEM 13) 08/01/2014	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 112947395

Waste Characterization and Related Tasks

TOCOR: Hope Pillsbury Max Expire Date: 06/05/2015

The purpose of this bilateral modification is to:

- 1) Correct Modification 1;
- 2) Correct the maximum expiration date of this task order; and
- 3) Incorporate the revised statement of work dated January 26, 2015.

This modification serves as a correction to Modification 1, which was released in EAS in error with the incorrect file attachment in FedConnect.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Carolyn Mosinski	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16C. DATE SIGNED 02/12/2015	16B. SIGNATURE <i>Carolyn W. Mosinski</i> ELECTRONIC SIGNATURE

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-W-10-055/0074/002PAGE OF
2 15NAME OF OFFEROR OR CONTRACTOR
EASTERN RESEARCH GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>This modification also corrects the maximum expiration date to read June 5, 2015. The period of performance end date for this task order is changed from March 17, 2015 to June 5, 2015.</p> <p>This correction modification also updates the deliverable schedule of the Statement of Work (attached, 13 pages).</p> <p>All other terms and conditions remain unchanged.</p> <p>LIST OF CHANGES: Reason for Modification : Supplemental Agreement for work within scope Maximum Potential Expiration Date changed to : 06/05/2015 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive Durham NC 27711 Period of Performance: 07/31/2014 to 06/05/2015</p>				

TASK ORDER
Waste Characterization and Related Tasks

BACKGROUND

The Office of Resource Conservation and Recovery (ORCR) is working to support advances in the integrated management of wastes. As part of this effort, we need to characterize municipal solid waste (MSW) generation and management and also broaden our focus to wastes in general.

In the past, EPA has developed several reports on the Characterization of Municipal Solid Waste in the United States. The most recent full report in this series is named "Municipal Solid Waste in the United States: 2011 Facts and Figures." It contains an executive summary and the full report. The most recent fact sheet is named "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012."

The purpose of this task order is to develop the full report, "Waste in the United States: 2013 Facts and Figures". The contractor shall present the data in tables, writing it up in 3 chapters, an executive summary, and appropriate appendices, table of contents, list of figures, and references. A fact sheet shall also be developed, based on 2013 data. The full report developed for the year 2011 shall be used as a starting point for the 2013 full report. The fact sheet for 2012 shall be used as a starting point for the 2013 fact sheet. In addition, information on waste beyond municipal solid waste (MSW) shall be included in the full report and the fact sheet and the design shall differ (see Tasks 3, 9, and 10). Previous full reports and fact sheets are available at <http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm>

The Waste Characterization Report shall analyze the composition and amounts of America's MSW, and include how those materials are recycled, incinerated and landfilled. The methodology used shall be a "top-down" materials flow approach to estimate the size of the waste stream. Data shall be gathered from a wide variety of public and private sources, such as the Department of Commerce, the Census Bureau, and trade associations.

All data collection, assessment and quality issues associated with this task order shall adhere to EPA data quality guidance and requirements, as established in CIO 2105, EPA Quality Manual CIO 2105-P-01-0, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html As part of the monthly progress reports for this task order, the contractor shall provide a summary of all data quality activities conducted during each month. The data gathered shall be the most recent data available.

Performance under this task order requires the contractor to develop deliverables that are considered by EPA to be "Communications Products". The contractor shall develop Communications Products in accordance with EPA's *Policy and Implementation Guide for Communications Product Development and Approval* found here: <http://www.epa.gov/productreview/guide/index.html>. Additionally, if Communications Products

require the use of EPA graphics, logos, or other identifiable materials, the Communications Products are further subject to the standards in *EPA's Visual and Product Standards Graphics Manual* found here: <http://wedcor.cor.epa.gov/pages/TIM/VisualIdentity-6-19-07.pdf>.

If this task order requires use of RCRA Confidential Business Information (CBI), the contractor and contractor employees shall abide by all RCRA CBI requirements at 40 CFR Part 2, Subpart B, including 40 CFR 2.305(h)(2), incorporating by reference 40CFR2.301(h)(2), as well as 40 CFR 260.2, 270.12, and 270.115, and requirements and stipulations found in the RCRA CBI Security Manual. The contractor shall identify in the work plan budget all estimated costs for dealing with CBI requirements per the contract. CBI is potentially included only in Tasks 1 and 2.

NOTE: Contractor personnel attending meetings and working in other situations where their status is not obvious to third parties must be required to identify themselves as such to avoid creating the impression in the minds of members of the public that they are Government officials.

PURPOSE OF TASK ORDER

The purpose of this task order is to develop characterization data on MSW Source Reduction, Recycling, Generation, and Disposal for 2013 and perform several related tasks. Specific objectives include:

- (1) Update estimates of the materials and products in MSW for 2013.
- (2) Develop the 2013 versions of all the charts, tables and figures provided in chapter 2 and 3 of the full 2011 report, as slightly modified in the 2012 Tables and Figures.
- (3) Prepare the 2013 executive summary and full report, including waste beyond MSW.
- (4) Prepare the Fact Sheet, "Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2013," based in part on the similar document, "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012."
- (5) Re-design the full report and fact sheet.
- (6) Develop charts in data.gov/EDG format.
- (7) Source reduction of packaging.
- (8) Food waste estimates.
- (9) Electronics generation and recovery methodology
- (10) Economics scoping memos

- (11) Construction and demolition debris
- (12) Waste wheel generation estimates
- (13) Integration of new state data into full report
- (14) 508-compliant versions of memos
- (15) Transition to a web-based report

The work to be completed and the schedule of deliverables are included in the tasks and subtasks detailed below.

Task 1 - Develop 2013 Data on MSW Source Reduction, Recycling, Generation, and Disposal (Task 5 of Contract-level SOW)

The contractor shall prepare figures and tables that present the 2013 MSW data, to be presented in the 2013 fact sheet and the 2013 full report.

For this task order, MSW generation shall be characterized by the material flows methodology, a materials balance approach. This methodology was developed by EPA in the mid-1970's, and has been used in an early series of characterization reports in that decade and later in the 1980's and 1990's. Through these reports, a more-than 30-year data series on products and materials has been developed. The data for these reports consists of publicly available information from the U.S. Department of Commerce, trade associations, and similar sources.

As has been done in previous reports, estimated generation of MSW shall be based on adjusted production data for the products identified as municipal solid waste. Management of MSW through recycling, composting, combustion, and landfilling shall be estimated through literature searches and other published data on materials recovery, and numbers of combustion facilities. MSW combustion facilities shall be broken down by type, with numbers of combustion facilities, and number of conversion facilities, such as pyrolysis and gasification, also provided.

Subtask 1.1 - Update Estimates of Materials and Products in MSW for 2013

The contractor shall update the estimates of the materials and products in municipal solid waste for 2013. The methodology used to update these estimates shall be based on the EPA-approved methodology used in the previous characterization reports, their corresponding executive summaries, and the 2012 fact sheet, that can be found at <http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm>

The deliverable shall be the tables and charts similar to those in Chapter 2 and 3 of the

"Municipal Solid Waste in the United States: 2011 Facts and Figures." These were slightly modified in "Tables and Figures for 2012", available at the website mentioned above. There are approximately 40 such tables and charts. Also included, shall be a 2-4 page progress report on the update of the materials and product estimates. The progress report shall include a description of key methodological issues and how they are proposed to be addressed.

<u>Deliverables</u>	<u>Due Date</u>
Chapter 2 and 3 Tables and Charts Progress Report	completed February 13, 2015

Subtask 1.2 – Draft 2013 Executive Summary Report, based on data developed for Subtask 1.1

The contractor shall write the executive summary (ES) for "Waste Characterization in the United States: 2013 Facts and Figures", based on data developed for Task 1.1. The executive summary for the 2011 waste characterization report shall be used as a starting point for the 2013 ES. The 2013 ES may differ in style (see Task 3) and may also include waste beyond MSW, in particular, C&D debris and the waste wheel (see Tasks 9 and 10).

<u>Deliverables</u>	<u>Due Date</u>
First draft ES for 2013	March 9, 2015
Second draft ES for 2013	One week after receipt of comments from EPA TOCOR

Subtask 1.3 – Draft 2013 Full Report, based on data developed for task 1.1

The contractor shall write the full report for "Waste Characterization in the United States: 2013 Facts and Figures," based on data developed for Task 1.1. The contractor shall provide a written rationale for any significant data changes. The contractor shall provide additional detail regarding the generation and recovery of food scraps and yard trimmings. The report may differ in style (see Task 3) and the appendices may include waste beyond MSW, in particular, C&D debris and the waste wheel (see Tasks 9 and 10).

<u>Deliverables</u>	<u>Due Date</u>
First draft report for 2013	March 9, 2015
Revised draft report for 2013	One week after receipt of comments from EPA TOCOR
2 nd revised draft report for 2013	One week after receipt of comments from EPA

TOCOR

Final report for 2013

One week after receipt of comments from EPA
TOCOR**Task 2 - Develop Fact Sheet for 2013 Data (Task 4 of Contract-level SOW)**

The contractor shall develop a 2013 fact sheet, (FS) using "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012" as a starting point. This fact sheet shall contain benefits numbers from the WARM model, similar to the 2012 fact sheet. The EPA TOCOR shall provide the benefits numbers to the contractor. The fact sheet may differ in style (see Task 3) and may include waste beyond MSW, in particular, C&D debris and the waste wheel (Tasks 9 and 10). The contractor shall also provide the excel versions of the figures from the fact sheet to EPA.

<u>Deliverables</u>	<u>Due Date</u>
First draft FS for 2013	February 27, 2015
Revised draft FS for 2013	One week after receipt of comments from EPA TOCOR
2 nd draft FS for 2013	One week after receipt of comments from EPA TOCOR
3 rd draft FS for 2013	One week after receipt of comments from EPA TOCOR
Final FS for 2013	One week after receipt of comments from EPA TOCOR
Excel figures for 2013	One week after EPA TOCOR receives Final FS

Task 3 – Re-design of the full report and fact sheet (Task x of Contract-level SOW)

The contractor shall re-design the fact sheet so it has a new look. The fact sheet shall be in full color. This new look shall coordinate with the design of the full report. The full report shall include some 3-D pie charts, more pie charts and graphs in color, and an attractive cover.

<u>Deliverables</u>	<u>Due Date</u>
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Example first page of re-designed fact sheet
and cover of full report

Completed

2nd draft first page of re-designed fact sheet
and cover of full report

One week after receipt of comments from
EPA TOCOR

Task 4 – Develop charts in Data.gov/EDG format (Task 5 of Contract-level SOW)

The contractor shall develop a second version of the MSW tables in a format suitable for posting on the EDG website (formerly they were posted on the Data.gov website). These are a stand-alone deliverable. An example of the format is attached below, with the heading “Materials Discarded in the U.S. Municipal Waste Stream”. In order to improve compatibility for interactive platforms such as Data.gov’s Socrata platform (<http://explore.data.gov/>), tables should have a single header row with explanatory column names. Raw or granular data shall be generated and provided in machine-readable formats (e.g., XML, CSV, XLS) and environments. Standard metadata, technical documentation, and/or data dictionaries shall be provided.

Deliverables

Due Date

First draft tables

March 13, 2015

Final tables

One week after receipt of comments from EPA TOCOR

Task 4 template

Materials Discarded in the U.S. Municipal Waste Stream, 1960 to 2009 (in tons)

The U.S. Environmental Protection Agency (EPA) has data on the generation and disposal of waste in the United States spanning more than 30 years. We use this information to measure the success of waste reduction and recycling programs across the country. Our trash, or municipal solid waste (MSW), is made up of the things we commonly use and then throw away. These materials include items such as packaging, food scraps, grass clippings, sofas, computers, tires, and refrigerators. MSW does not include industrial, hazardous, or construction waste. The data on Materials Discarded in the Municipal Waste Stream, 1960 to 2009 provides estimated data in tons discarded after recycling and compost recovery for the years, 1960, 1970, 1980, 1990, 2000, 2005, 2007, 2008, and 2009. In this data set, discards include combustion with energy recovery. This data table does not include construction and demolition debris, industrial process wastes, or certain other wastes. The “Other” category includes electrolytes in batteries and fluff pulp, feces, and urine in disposable diapers. Details may not add to totals due to rounding.

Materials Discarded in the U.S. Municipal Waste Stream, 1960 to 2009 (in tons)					
	Materials	1960	1970	1980	Etc.
1	Products – Paper and Paperboard	24,910,000			

2	Products - Glass				
3	Products – Metals - Ferrous				
4	Products – Metals - Aluminum				
5	Products – Metals – Other Nonferrous				
6	Products – Metals -Total				
7	Products - Plastics				
8	Products – Rubber and Leather				
9	Products - Textiles				
10	Products – Wood				
11	Products - Other				
12	Products – Total Materials				
13	Other Wastes – Food Scraps				
14	Other Wastes – Yard Trimmings				
15	Other Wastes – Miscellaneous Inorganic				
16	Other Wastes - Total				
17	Total MSW Discarded - Weight	82,510,000			

Task 5 – Source Reduction of Packaging (Task 5 of Contract-level SOW)

The contractor shall develop a scoping memo of about 3 to 5 pages, describing ways MSW packaging has been source reduced over the last 10 to 20 years, with emphasis on the last 10 years. Quantification of the source reduction is preferred but not required. If directed to by the EPA TOCOR, incorporate the estimates into chapter 3 of the full report.

Deliverables

Due Date

First draft SR scoping memo

Completed

Final SR scoping memo

Two weeks after receipt of comments from EPA TOCOR on first draft

Task 6 – Food Waste and Bio-based Products and Chemicals (Task 5 of Contract-level SOW)

Task 6.1 – Develop Food Waste Estimates

Develop estimates for how much MSW food waste was donated, composted, used as animal feed, and anaerobically digested (AD) in 2013. Estimates of disposition of AD digestate shall be

developed. If directed to by the EPA TOCOR, incorporate the estimates into the full report.

<u>Deliverables</u>	<u>Due Date</u>
First draft estimates memo	Completed
Final estimates memo	Two weeks after receipt of comments from EPA TOCOR

Task 6.2 – Bio-based Products and Chemicals

Bio-based products and chemicals including cellulosic and biomass related materials are starting to be diverted from the waste stream and used in waste-to-energy scenarios. Scope out what major types of bio-based products and chemicals are being used in waste-to-energy scenarios and note which ones, if any, are being used for the various categories of renewable fuels including Cellulosic Biofuel, Biomass-Based Diesel, Advanced Biofuel, Renewable Fuel and Cellulosic Diesel. Quantify amounts if possible.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	Completed
Final memo	Two weeks after contractor receives comments from EPA on first draft memo.

Task 7 – Electronics Generation and Recovery Methodology (Task 5 of Contract-level SOW)

The current electronics generation and recovery methodology is described in “Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures—A Methodology Document”. This is available on request. The contractor shall update the electronics generation and recovery methodology, especially in light of the recently published MIT report, “Quantitative Characterization of Domestic and Transboundary Flows of Used Electronics: Analysis of Generation, Collection and Export in the United States,” by Huabo Duan, T. Reed Miller, Jeremy Gregory, and Randolph Kirchain of MIT and Jason Linnell of the National Center for Electronics Recycling, December 2013.

The contractor shall develop an updated estimate for how much electronics recycling was certified versus uncertified in 2013. Incorporate the task 7 information into the full report.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	February 3, 2015

EPW10055/0074/002
Second draft memo

Two weeks after contractor receives
comments from EPA on first draft memo

Final memo

One week after contractor receives
comments from EPA on second draft memo

Task 8 – Economics Scoping Memos (Task 5 of Contract-level SOW)

At the direction of the EPA TOCOR, key information from subtask 8.1 and 8.5 shall be incorporated into the fact sheet and the executive summary of the full report.

Subtask 8.1 – Historical Charts

Economic data and economic indicators are important, when considering sustainable materials management. Develop a historical chart of MSW commodity revenues over time and a historical chart of MSW disposal over time. The time span shall be 1960 through 2013, if data is available over that time span.

Deliverables

Due Date

First draft memo

Completed

Final memo

One week after receipt of EPA TOCOR
comments

Subtask 8.2 – Indicators

Indicator A is Exploration of export markets on price of selected commodities and their volatility and indicator B is Exploration of data regarding supply and demand for the selected commodities and how that impacts price, recycling rates, and disposal. These were mentioned in the 9/17/2013 indicator selection memorandum, which will be supplied if requested. Scope out indicators A and B, including (1) name and description of indicator, (2) why the indicator might be of interest, (3) data caveats and limitations, including data availability gaps, (4) data availability, including cost, location, frequency of publication and available years, and (5) highlights from other studies performing similar work. The commodities to be addressed are paper, plastic, and metals.

Deliverables

Due Date

First draft memo

Completed

Subtask 8.3 – Materials Processing Scoping Studies

Scope out availability of data and the appropriate methodology for creating report content regarding: 1) gross and net recycling rates of various commodities providing a basis for identifying data gaps and recycling system efficiencies, and 2) domestic processing versus exports for materials recycling. This has already been done for paper (corrugated containers and newspapers); plastic (PET bottles and jars); metal packaging (aluminum and steel cans); and scrap tires. The memo "Recovered Materials Processing Scoping Study" (12/20/2013) will be supplied on request. The contractor shall perform similar scoping analyses for HDPE plastic containers and glass containers.

Deliverables**Due Date**

First draft memo

Completed

Final memo

One week after receipt of EPA TOCOR
comments**Subtask 8.4 -- Update of 12/20/13 Materials Processing Scoping Study**

EPA plans to send out portions of the memo "Recovered Materials Processing Scoping Study (12/20/13) to appropriate industry contacts for review. The contractor shall revise the memo based on comments forwarded to the contractor by EPA.

First draft memo

May 1, 2015 (4 weeks after receipt of
comments from EPA)

Final memo

One week after receipt of EPA TOCOR
comments**Task 8.5 – Analysis of MSW Generation versus PCE and GDP**

Analyze MSW generation versus gross domestic product (GDP) and MSW generation versus personal consumer expenditures (PCE). Include a graph in the 2013 fact sheet similar to Figure 9 in the 2012 fact sheet. Include appropriate text along with the graphs. Use the time span 1960 through 2013.

Deliverables**Due Date**

First draft memo

February 6, 2015

Second draft memo

1 week after receipt of comments from EPA
TOCOR

Inclusion in 2013 fact sheet

February 10, 2015

Task 9 – Construction and Demolition Debris- National Estimates (Task 5 of Contract-level SOW)

The contractor shall estimate how much construction and demolition debris is generated in the United States. Estimate how much is recycled and how much is disposed. The contractor shall either use a mass balance approach or perform these estimates based on state data. The approach shall be decided on, at the kick-off meeting for the project. The analysis shall address traffic pavement and steel in roads, bridges, and other infrastructure, and building-related C&D waste made up of materials such as concrete, steel, asphalt shingles, gypsum wallboard and plaster, wood, and brick and clay tile. The analysis shall be included as an appendix to the Waste Characterization Report and key information shall be included in the Fact Sheet and the Executive Summary to the full report.

Note that EPA has performed two C&D Characterization Reports in the past which should provide useful information in performing this task. Links to these are:

<http://www.epa.gov/epawaste/conservation/rrr/imr/cdm/pubs/cd-meas.pdf> and
<http://www.epa.gov/epawaste/hazard/generation/sqg/cd-rpt.pdf>

Additional memos which the contractor might find of assistance include “Construction and Demolition (C&D) Materials Scoping Study: C&D Generation and Management Methodology”, 10/10 2012, and “Construction and Demolition (C&D) Materials Scoping Study: Building Materials Reuse Centers”, 10/5/2012. These are available on request.

<u>Deliverables</u>	<u>Due Date</u>
First draft analysis	February 10, 2015
Second draft analysis	Two weeks after contractor receives comments from EPA on first draft analysis
Final analysis	Two weeks after contractor receives comments from EPA on second draft analysis

Task 10 – Waste Wheel Generation Estimates (Task 5 of Contract-level SOW)

The waste wheel is a pie chart which estimates waste generated in the United States, by type. The types included in the waste wheel are hazardous waste, non-hazardous industrial solid waste, municipal solid waste, building-related construction and demolition materials, special wastes, and other wastes. Special wastes include cement kiln dust, mining and mineral processing waste, crude oil and natural gas waste, and fossil fuel combustion waste. The contractor shall update the waste wheel with the most recent data available from EPA. New analysis (other than MSW and C&D mentioned above), is not expected. Appropriate explanatory text shall accompany the waste wheel.

The latest version of the waste wheel can be found on page 4 of EPA's internal report, "State of the National RCRA Program"-Draft-December 28, 2011, which can be supplied on request. This memo shall be an appendix to the Waste characterization report. Waste wheel information shall be incorporated into the full report executive summary and the fact sheet.

<u>Deliverables</u>	<u>Due Date</u>
First draft appendix	February 17, 2015
Second draft appendix	Two weeks after contractor receives comments from EPA on first draft analysis
Final appendix	Two weeks after contractor receives comments from EPA on second draft analysis

Task 11 – Integration of New State Data into Full Report (Task 5 of Contract-level SOW)

The contractor shall develop a method for how to integrate new state data developed under the State Data Measurement Sharing Program (SDMSP), into the Full Waste Characterization Report. The contractor shall identify any differences in definitions between the SDMSP and the historical MSW Characterization Report.

Describe the integration method in a memo. Refer to the website http://www.epa.gov/epawaste/conservation/tools/recmeas/state_effort.htm for information on the SDMSP.

<u>Deliverables</u>	<u>Due Date</u>
First draft memo	March 4, 2015
Final memo	2 weeks after receipt of EPA TOCOR

comments

Task 12 – Generating PDF, 508-Compliant Versions of Existing Memos

EPA has about fourteen memos, about 5-20 pages in length, in word, with excel graphs and figures. There are about 55 tables and 40 figures, total, in these memos. The contractor shall convert the memos to PDF, with appropriate tags on the graphics for 508-compliance. The contractor shall also convert about 3 excel files of MSW characterization data from 1960 to 2012, to 508-compliance.

Final memos

Completed

Task 13 – Transition to a Web-Based Report

The contractor shall briefly describe how the Waste Characterization Report could be transitioned to a web-based report. In this web-based report, individual MSW commodities' generation and recycling rates would be posted when available during the year. A yearly report would summarize the data, and provide national MSW generation, recycling, and disposal data. This shall be described in a memo of 10 to 20 pages.

Deliverables**Due Date**

First draft memo

Completed

Final memo

2 weeks after receipt of EPA TOCOR
comments**ELECTRONIC DELIVERABLES****Internet Ready Electronic Files**

The contractor shall provide the deliverables in pdf and in Internet-ready format. Final deliverables shall comply with the standards, guidelines and processes in the EPA Web guide at <http://www.epa.gov/webguide>.

Final deliverables shall comply with the accessibility standards developed under Section 508 of the Americans with Disabilities Act (<http://www.section508.gov>)

At the completion of this task order, the contractor shall return all program-related materials that the contractor possesses, that belong to EPA. The contractor shall also provide a copy of source spreadsheets used to compile and create the waste characterization fact sheet and tables and charts.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 5	
2. AMENDMENT/MODIFICATION NO. 003		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-R5-15-00130	
5. PROJECT NO. (If applicable)		6. ISSUED BY SRRPOD US Environmental Protection Agency Superfund/RCRA Regional Procurement Operations 1200 Pennsylvania Ave, NW Washington DC 20460		7. ADMINISTERED BY (If other than Item 6) CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) EASTERN RESEARCH GROUP, INC. Attn: DICKRAN BABIGIAN 110 HARTWELL AVENUE LEXINGTON MA 024213136		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 112947395		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-W-10-055 0074	
				10B. DATED (SEE ITEM 13) 08/01/2014	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$7,085.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 112947395

Waste Characterization and Related Tasks

TOCOR: Hope Pillsbury Max Expire Date: 06/05/2015

The purpose of this bilateral modification is to:

- 1) Incorporate the revised statement of work (2 pages) dated February 20, 2015;
- 2) Approve the contractor's proposal in the amount of \$7,085.00
- 3) Obligate funds in the amount of \$7,085.00; and
- 4) Modify the total funding amounts.

This action adds funding in the amount of \$7,085 to this task order and hereby increases Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Carolyn Mosinski	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	11 Carolyn W. Mosinski ELECTRONIC SIGNATURE	16C. DATE SIGNED 03/13/2015

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-W-10-055/0074/003PAGE OF
2 5NAME OF OFFEROR OR CONTRACTOR
EASTERN RESEARCH GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>the total funding obligation ceiling from \$264,525.00 to \$271,610.00, which the Contractor is not authorized to exceed. The Contractor exceeds this amount at its own risk. This task order is hereby fully funded.</p> <p>The total task order ceiling price is hereby increased from \$264,252.00 by \$7,085.00 to \$271,610.00.</p> <p>All other terms and conditions remain unchanged.</p> <p>LIST OF CHANGES: Reason for Modification : Supplemental Agreement for work within scope Total Amount for this Modification: \$7,085.00 New Total Amount for this Version: \$271,610.00 New Total Amount for this Award: \$271,610.00 Obligated Amount for this Modification: \$7,085.00 New Total Obligated Amount for this Award: \$271,610.00 CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from \$264,525.00 to \$271,610.00 Obligated Amount for this modification: \$7,085.00</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 14-15-B-05Q-302DA2-2505-1505QEX503-001 Beginning Fiscal Year 14 Ending Fiscal Year 15 Fund (Appropriation) B Budget Organization 05Q Program (PRC) 302DA2 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1505QEX503-001 Quantity: 0 Amount: \$7,085.00 Percent: 2.67839 Subject To Funding: N Payment Address:</p> <p>Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-W-10-055/0074/003PAGE OF
3 5NAME OF OFFEROR OR CONTRACTOR
EASTERN RESEARCH GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (D143-02) 109 TW Alexander Drive Durham NC 27711 FOB: Destination Period of Performance: 07/31/2014 to 06/05/2015				

**Waste Characterization and Related Tasks
Contract No. EP-W-10-055, TO #74
February 20, 2015**

Background

The Resource Conservation and Sustainability Division (RCSD) is working to support advances in the integrated management of municipal solid wastes (MSW). As part of this effort, we need to characterize MSW generation and management.

In the past, EPA has developed several reports on the Characterization of Municipal Solid Waste in the United States. The most recent full report in this series is named "Municipal Solid waste in the United States: 2011 Facts and Figures." It contains an executive summary and the full report. The most recent fact sheet is named "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012.

Scope of Work

The purpose of this task order amendment is to develop updated volume-to-weight conversion factors. These are needed when working with the numbers in the Waste Characterization report. The most recent volume-to-weight conversion factors were published in 1997 as appendix B in EPA's document, "Measuring Recycling: A Guide for State and Local Governments". See (<http://www.epa.gov/solidwaste/conservetools/recmeas/index.htm>) A pdf of the 1997 volume-to-weight conversion factors is provided along with this amendment. See Task 14, below. This amendment also provides changes to Task 10. See Task 10, below. This revision to the statement of work amends Tasks 10 and 14 only.

Task 10

The purpose of Task 10 is to develop waste wheel generation estimates. The waste wheel is a pie chart which estimates waste generated in the United States, by type. The existing task order says, "The contractor shall update the waste wheel with the most recent data available from EPA". EPA, however does not have the data ready to provide, and won't have it ready within the period of performance of Task Order 74. EPA therefore instructs the contractor to stop work on Task 10.

Task 14

The contractor shall update the volume-to-weight conversion factors found in appendix B in EPA's document, "Measuring Recycling: A Guide for State and Local Governments". Specifically, numbers shall be updated for food, glass, lead-acid batteries, metals, paper, plastic, textiles, tires, wood, yard trimmings, furnishings, and municipal solid waste as a whole. References shall be provided. This shall be suitable for inclusion as an appendix to future Characterization Reports (not the 2013 report being completed now). It shall also be suitable as a stand-alone memo. It shall be provided in a 508-compliant form.

Deliverables

Due Date

First draft volume-to-weight conversion factors

5 weeks after receipt of task order modification

Final volume-to-weight conversion factors

2 weeks after receipt of EPA comments on the
first draft volume-to-weight conversion factors

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 004		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY SRRPOD US Environmental Protection Agency Superfund/RCRA Regional Procurement Operations 1200 Pennsylvania Ave, NW Washington DC 20460		CODE SRRPOD		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) EASTERN RESEARCH GROUP, INC. Attn: DICKRAN BABIGIAN 110 HARTWELL AVENUE LEXINGTON MA 024213136		(X)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 112947395		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-W-10-055 0074	
				10B. DATED (SEE ITEM 13) 08/01/2014	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 112947395

Waste Characterization and Related Tasks

TOCOR: Hope Pillsbury Max Expire Date: 07/15/2015

The purpose of this modification is to extend the period of performance from June 5, 2015 through July 15, 2015 in accordance with the SOW and attached revised deliverable schedule dated May 19, 2015. The task order period of performance is revised to read August 1, 2014 through July 15, 2015.

LIST OF CHANGES:

Reason for Modification : Supplemental Agreement for work within scope

Period Of Performance End Date changed from 05-JUN-15 to 15-JUL-15

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Carolyn Mosinski	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-W-10-055/0074/004PAGE OF
2 2NAME OF OFFEROR OR CONTRACTOR
EASTERN RESEARCH GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Total Amount for this Modification: \$0.00 New Total Amount for this Version: \$0.00 New Total Amount for this Award: \$271,610.00 Buyer changed from Marshand Boone to Carolyn Mosinski Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive Durham NC 27711 Period of Performance: 07/31/2014 to 07/15/2015				

Deliverable Schedule, as of May 19, 2015

The Waste Characterization fact sheet, full report, and scoping memos are undergoing additional discussion and sequential review by management within EPA, therefore we need to add time for this to occur. The entire fact sheet, tables and figures, and full report must be completed, in order to have value to the government. Likewise, tasks 3-14 must be completed, in order to have value to the government.

Name of Deliverable	Current Schedule for Final	New Requested Due Date for Final
Tables and Charts (Task 1.1)	1/28/2015	completed
Executive Summary and Full Report (Tasks 1.2 and 1.3)	4/20/2015	7/10/2015
Fact Sheet (Task 2)	4/20/2015	7/10/2015
Re-design (Task 3)	completed	completed
Data.gov/EDG charts (Task 4)	3/27/2015	completed
Source reduction of packaging scoping memo (Task 5)	2/23/2015	completed
Food waste scoping memo (Task 6.1)	2/23/2015	completed
Bio-based scoping memo (Task 6.2)	2/23/2015	completed
Electronics scoping memo (Task 7)	3/2/2015	5/19/2015
Historical charts scoping memo (Task 8.1)	2/23/2015	completed
Indicators scoping memo (Task 8.2)	2/23/2015	completed
Materials Processing Scoping Memo on new materials (Task 8.3)	2/23/2015	completed
Update of 12/20/2013 materials processing scoping memo (Task 8.4)	5/29/2015	completed (stop work)
PCE scoping memo (Task 8.5)	2/10/2015	completed
C&D scoping memo (Task 9)	3/9/2015	5/19/2015
Waste wheel scoping memo (Task 10)	3/9/2015	completed (stop work)
State data scoping memo (Task 11)	4/1/2015	5/29/15 (stop work after draft 1 is made 508 compliant, if 508 compliance is requested)
508-compliant versions of pre-existing memos (Task 12)	completed	completed
Transition to a web-based report scoping memo (Task 13)	2/17/2015	completed (stop work after draft 1)
Volume-to-Weight conversion table (Task 14)	5/15/15	completed (stop work after draft 1)